

REMARKS

This is in response to the Office Action mailed on August 13, 2004. Claims 1-16 were pending in the application and the Examiner rejected all claims. With this response, claims 1 and 12 are amended and the remaining claims are unchanged in the application.

At the outset, Applicant has amended the specification to remedy a number of clerical errors found therein. In addition, Applicant submits herewith a new FIG. 3. A copy of FIG. 3 with the change shown in red is also submitted for review by the Examiner. The change to FIG. 3 is fully supported by the specification at page 15, lines 10-15, as originally filed. No new matter is believed to be added by any of these changes.

On pages 2-4 of the Office Action, the Examiner rejected claims 1-16 under 35 U.S.C. §102(b) as being anticipated by Franz et al. U.S. Patent No. 6,161,083. Applicant respectfully traverses the Examiner's rejection.

Of the rejected claims, claims 1, 6 and 12 are independent claims. Claims 1 and 6 are method claims which both specifically include receiving a phrase in a first language and "identifying a plurality of possible linguistic patterns in the second language" that are associated with (claim 1), or correspond to (claim 6), the phrase in the first language. Claims 1 and 6 also specifically include calculating a probability corresponding to each of the linguistic patterns identified. This is neither taught nor suggested by any of the cited portions of Franz et al., used by the Examiner in rejecting these claims.

The portions cited by the Examiner simply refer to Franz et al. receiving a sentence in a first language and matching the sentence against example sentences in an example database. The example database includes a number of examples in English, and each example has a corresponding translation into

Japanese. The example database also includes not only sentences, but clauses which also have English language entries, each followed by a translation into Japanese. Therefore, it is clear that the Example database set out in the cited portions of Franz et al. includes a plurality of English language sentences or clauses, each followed by a single Japanese translation. Franz et al. attempts to match the input sentence to the examples (either the entire input sentence to an example sentence or clauses in the input sentence to example clauses) and to provide the corresponding translation as an output.

However, if no matching examples exist, then Franz et al. attempts to find "similar" examples. In other words, if the example database does not contain the precise English input sentence, then Franz et al. attempts to find similar English sentences in the example database and outputs the translations of those similar examples.

In contrast, claims 1 and 6 of the present invention identify a plurality of possible linguistic patterns in the second language associated with the phrase in the first language. This is completely different than Franz et al. which finds a plurality of different examples in the first language, each of which has only a single translation associated therewith.

Specifically, claim 1 states "identifying a plurality of possible linguistic patterns in the second language associated with the phrase in the first language...". Similarly, claim 6 specifically states "identifying a plurality of possible linguistic patterns in the second language that correspond to the phrase in the first language...". This is simply neither taught nor suggested by Franz et al.

The specific language cited by the Examiner which purportedly teaches this limitation is set out at column 10, lines 40-55. However, this language simply deals with translating words that do not appear in the input, but which

appear in the most similar example detected. Of course, this has nothing to do with identifying a plurality of linguistic patterns in a second language based on a phrase input in a first language.

Independent claim 12 also includes "a pattern engine receiving a phrase in a first language and identifying a plurality of linguistic patterns in a second language, associated with the phrase in the first language...". Thus, for the same reasons that Franz et al. does not teach or suggest the elements of claims 1 and 6, it does not teach or suggest the apparatus set out in this element of claim 12. Franz et al. simply does not teach identifying a plurality of linguistic patterns in a second language that are associated with the input phrase in the first language.

In addition, independent claims 1 and 12 both specifically include either a method step of calculating a translation probability for each pattern identified, or an apparatus configured to generate a translation probability for each linguistic pattern identified. Because Franz et al. does not find a plurality of linguistic patterns in a second language that correspond to an input phrase in a first language, Franz et al. cannot calculate a translation probability for each of the plurality of patterns. Therefore, independent claims 1, and 12 are allowable over Franz et al. for this reason as well.

Applicant thus submits that independent claims 1, 6 and 12 are allowable over Franz et al. There is no teaching or suggestion in Franz et al. of identifying a plurality of linguistic patterns in a second language that are associated with an input phrase in a first language. To the contrary, Franz et al. identifies one or more different examples in the first language that are somewhat similar to the input phrase in the first language. Each of the examples identified have but one translation into the second language. There is no mention of

finding a plurality of linguistic patterns in the second language that are associated with the input phrase in the first language.

Applicant further submits that a number of the dependent claims are independently allowable as well. For instance, dependent claim 5 which depends from claim 1, specifically states that the translation probability is not only based on a combination of a language model probability for the linguistic pattern and a translation model probability for the linguistic pattern (set out in claim 1) but also that it is based on a pattern probability for the linguistic pattern. This is neither taught nor suggested by Franz et al.

The language in Franz et al. cited by the Examiner as allegedly teaching this element is column 37, lines 32-57. This cited text clearly does not teach or suggest calculating a translation probability based on language model probability, a translation model probability and a pattern probability. Instead, it appears that this section deals with determining how similar an English language example in the example database is to the English language input sentence. It simply has nothing to do with calculating a pattern probability corresponding to a linguistic pattern in the second language, as set out in claim 5.

Similarly, calculating the translation probability is set out in detail in claims 7 and 8, which depend from claim 6. Therefore, Applicant submits that these claims are independently allowable over Franz et al. as well.

In conclusion, Applicant submits that independent claims 1, 6 and 12 are allowable over Franz et al. Applicant further submits that dependent claims 2-5, 7-11 and 13-16 are allowable both by virtue of the dependence on allowable independent claims, and because they claim independently allowable subject matter. Therefore, Applicant submits that claims 1-16 are allowable. Reconsideration and allowance of claims 1-16 are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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FIG. 3

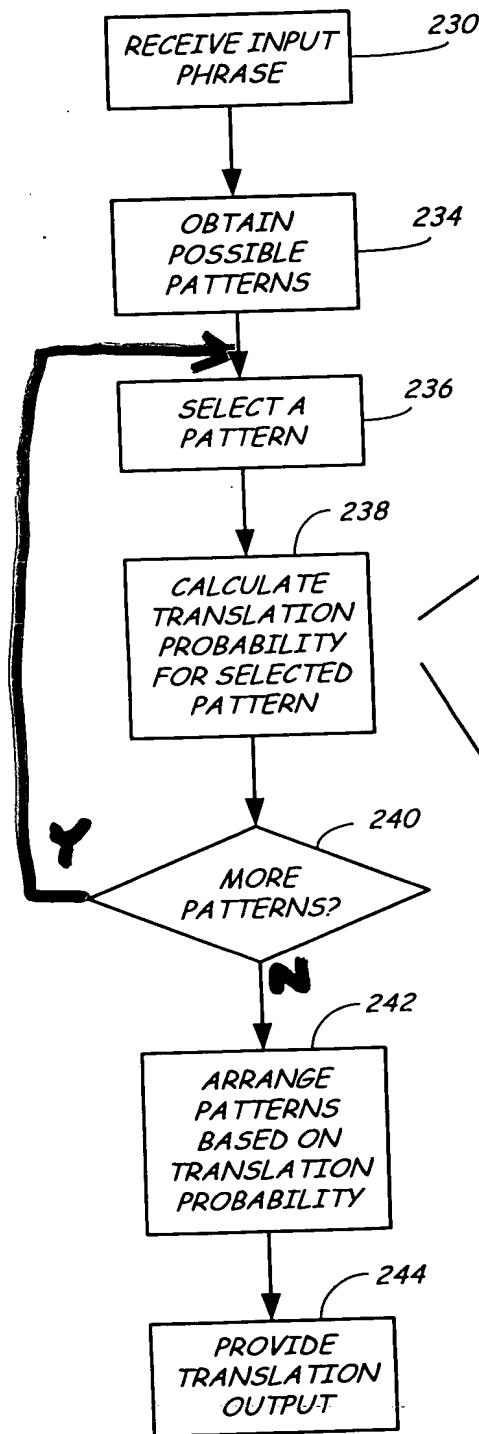


FIG. 5

